What is claimed is:

1.   A silent chain and sprocket assembly comprising:

a sprocket having a plurality of low profile protrusions extending outwardly from said sprocket at

5   locations spaced along an outer periphery of the sprocket;

a silent chain having a series of interleaved inner and outer link rows that are interleaved along a chain direction;

10   adjacent inner and outer link rows are joined to each other by members extending through interleaved portions of adjacent inner and outer link rows to form a rotatable joint between the adjacent inner and outer link rows;

15   the links of said inner and outer link rows form a surface that overlies the sprocket protrusions and conforms closely to said low profile protrusions on said sprocket; and

the link surface extending along the chain direction a distance substantially the length of the link along the chain direction.

2. The silent chain and sprocket assembly of claim 1 wherein the surface of the links that is sized to overlie the low profile protrusions of the sprocket is at a back-side of the chain.

3. The silent chain and sprocket assembly of claim 2 wherein the links have a surface that defines two teeth extending from the link at a front-side of the chain.

4. The silent chain and sprocket assembly of claim 1 wherein the surface that overlies the sprocket protrusions extends along the chain direction of the links a distance that approximates the distance from a center of a member joining the link to one adjacent row of links to a center of a member joining the link to another adjacent row of links.

5.   A silent chain and sprocket assembly

comprising:

a front-side sprocket, said front-side sprocket

having a plurality of teeth spaced about an outer

5   periphery of said front-side sprocket;

a back-side sprocket, said back-side sprocket having

a plurality of small, low profile, protrusions spaced

about an outer periphery of said back-side sprocket;

a silent chain having a front-side and back-side,

10   said front-side of said chain engaging said front-side

sprocket and said back-side of said chain engaging said

back-side sprocket;

the chain having link plates forming inner and outer

link rows, said inner and outer link rows interleaved

15   along a chain direction;

the link plates having a front-side at the front-

side of the chain, and a back-side at the back-side of

the chain;

the link plates forming two apertures spaced along

20   the chain direction;

the link plates forming two teeth to engage a tooth of said front-side sprocket at an end of the link along the chain direction, to engage a second tooth at another end of the link along the chain direction, and to engage

25   a third tooth intermediate the teeth at the ends of the link plate;

the link plates defining a back-side surface that conforms closely to a portion of the back-side sprocket extending a distance substantially equal to a length of

30   the link plates along the chain direction.

6.   The silent chain and sprocket assembly of claim 5 wherein the low profile protrusions of the back-side sprocket are formed by two sprocket surfaces that meet at the protrusion and extend oppositely from each other

5   along the periphery of the back-side sprocket from a first end to a second end a distance that is approximately the length of the back-side surface of the link plates.

7.   The silent chain and sprocket assembly of claim 6 wherein the back-side sprocket surfaces are generally flat.

8.   The silent chain and sprocket assembly of claim 6 wherein the back-side sprocket surfaces are generally flat between the first and second ends, and that extend outwardly from the back-side sprocket near their first and second ends.

9.   The silent chain and sprocket assembly of claim 5 wherein the back-side surfaces of the link plates closely conform to the low profile protrusions along the back-side sprocket, to the back-sides formed to extend along the periphery of the sprocket to overlie a protrusion.